

Abstract

This invention relates to a new optical geometry for using a linear variable filter as an
5 optical spectral filter. An elliptical beam geometry with the minor beam axis oriented
along the linearly varying axis of the filter is used. The beam is incident at a slight angle
relative to the long axis of the beam. Ultimately this geometry produces a filter which
has minimum spectral broadening from both angular and beam extent effects.

Furthermore, this geometry results in low back reflectance and higher input beam power
10 damage thresholds. The optical filter includes means for tuning a wavelength response of
the filter. Further, the optical filter can afford Add/Drop functionality by providing
optical circulators at the input and output ports.